



APPENDIX A:

22. A method comprising:

controlling the flow of an aseptic product using a valve;

surrounding a region where the aseptic product exits the valve with a sterile region wherein the sterile region is a sterile tunnel; and

controlling the opening or closing of the valve with a sealed actuator, wherein the sealed actuator is surrounded with the sterile region.

25. The method [of claim 22,] comprising:

controlling the flow of an aseptic product using a valve;
surrounding a region where the aseptic product exits the valve with a sterile region;

controlling the opening or closing of the valve with a sealed actuator, wherein the sealed actuator is surrounded with the sterile region; and

[further including] providing a second apparatus wherein the container is filled to a first level with the product exiting from the first apparatus, and the container is filled to a second level with the product exiting from the second apparatus.

26. The method comprising [of claim 24, further including]:
controlling the flow of an aseptic product using a valve;
surrounding a region where the aseptic product exits the
valve with a sterile region;
controlling the opening or closing of the valve with a
sealed actuator, wherein the sealed actuator is surrounded with
the sterile region;
providing a tank for containing a supply of pressurized
aseptic product flowing to the valve;
providing a measuring device for measuring the amount of
pressurized aseptic product flowing from the tank to the valve;
exposing the valve, an interior surface of the tank, and an
interior surface of the measuring device to steam;
covering an exit of the valve; and
allowing a build-up of steam pressure inside the tank to
above a temperature of about 250°F, a steam pressure of about 50
psig, for about 30 minutes.

27. The method comprising [of claim 20, further including]:
controlling the flow of an aseptic product using a valve;
surrounding a region where the aseptic product exits the
valve with a sterile region;
controlling the opening or closing of the valve with a
sealed actuator, wherein the sealed actuator is surrounded with

the sterile region;

providing a tank for containing a supply of pressurized aseptic product flowing to the valve;

providing a measuring device for measuring the amount of pressurized aseptic product flowing from the tank to the valve;

exposing the valve, an interior surface of the tank, and an interior surface of the measuring device to steam;

covering an exit of the valve;

allowing a build-up of steam pressure inside the tank to above a temperature of about 250°F, a steam pressure of about 50 psig, for about 30 minutes;

uncovering the exit of the valve; and

providing sterile air to reduce the temperature of the valve, the interior surface of the tank, and the interior surface of the measuring device to the temperature of the product.

37. A method comprising:

controlling the flow of an aseptic product through a nozzle using a valve;

surrounding a region where the aseptic product exits the valve with a sterile region wherein the sterile region is a sterile tunnel; and

displacing the valve with an electromagnetic actuator, wherein an electrical current applied to the electromagnetic

actuator displaces the valve into an open position allowing the aseptic product to flow through an outlet port of the nozzle.

38. The method [of claim 37,] comprising:

controlling the flow of an aseptic product through a nozzle using a valve wherein an outer surface of the valve includes indentations for forming aseptic product flow passages between an inner wall of the nozzle and the outer surface of the valve for transporting the aseptic product to the outlet port of the nozzle;

surrounding a region where the aseptic product exits the valve with a sterile region; and

displacing the valve with an electromagnetic actuator, wherein an electrical current applied to the electromagnetic actuator displaces the valve into an open position allowing the aseptic product to flow through an outlet port of the nozzle.